

Claims

1. An adaptor for use with a container equipped with a dispensing valve that comprises a valve stem movable between an inner closed or priming position and an outer dispensing position, for dispensing doses of pressurized aerosol formulation, the adaptor being adapted to receive the container and comprising an actuation mechanism, said actuation mechanism being arranged such that the user will operate the mechanism by applying a depressive or squeezing force and the dose will be dispensed upon said depressive or squeezing force and said actuation mechanism being arranged such that upon release of the mechanism by the user, the valve stem of the dispensing valve will be moved automatically into its closed or priming position.
2. An adaptor according to claim 1, wherein the actuation mechanism is arranged, such that upon said depressive or squeezing force the valve stem will be pulled from its closed or priming position into its dispensing position.
3. An adaptor according to claim 1 or claim 2, wherein the actuation mechanism comprises a mounting block and an actuating member; said mounting block being adapted to retain the container and to prevent movement of the container relative to the adaptor and said actuating member being arranged to be in contact with the valve stem and biased towards the container, such that the valve stem will rest in its closed or priming.
4. A dispenser for dispensing doses of pressurized aerosol formulation to a user, said dispenser comprising:
a container containing a pressurized aerosol formulation and equipped with a dispensing valve that comprises a valve stem movable between an inner closed or priming position and an outer dispensing position, to dispense a dose; and

an adaptor adapted to receive the container and comprising an actuation mechanism, said actuation mechanism being arranged such that the user operates the mechanism by applying a depressive or squeezing force and the dose is dispensed upon said depressive or squeezing force and said actuation mechanism being arranged such that upon release of the mechanism by the user, the valve stem of the dispensing valve is moved automatically to its closed or priming position.

5. A dispenser according to claim 4, wherein the actuation mechanism is arranged, such that upon said depressive or squeezing force the valve stem is pulled from its closed or priming position into its dispensing position.

6. A dispenser according to claim 4 or 5, wherein the actuation mechanism comprises a mounting block and an actuating member; said mounting block being adapted to retain the container and to prevent movement of the container relative to the adaptor and said actuating member being in contact with the valve stem and biased towards the container, such that the valve stem rests in its closed or priming.

7. A dispenser according to claim 6 as dependent on claim 4, wherein said actuating member is arranged, such that upon said depressive or squeezing force the actuating member moves away from the container against the bias allowing the valve stem to move into its dispensing position.

8. A dispenser according to claim 6 as dependent on claim 5, wherein said actuating member is coupled to the valve stem and wherein said actuating member is arranged, such that upon said depressive or squeezing force the actuating member moves away from the container against the bias and the valve stem is pulled into its dispensing position.

9. A dispenser according to claim 5, wherein the actuation mechanism comprises an anchoring block, which is adapted to retain the valve stem and to prevent movement of the valve stem relative to the adaptor, and wherein the container is

biased towards the valve stem, such that the valve stem rests in its closed or priming position, and wherein said actuation mechanism further comprises an actuating member, said actuating member being arranged, such that upon said depressive or squeezing force, the actuating member moves the container against the bias away from the valve stem, thereby pulling the valve stem into its dispensing position relative to the container.

10. A dispenser according to any one of claims 4 to 9, wherein the dispensing valve is arranged, such that the valve stem is biased towards its dispensing position by vapor pressure generated by the pressurized aerosol formulation.

11. A dispenser according to any one of claims 4, 5, 6, 8 and 9, wherein the dispensing valve is of neutral bias.

12. A dispenser according to claim 7, wherein the dispensing valve comprises an internal spring bias positioned at the inner end of the valve stem biasing the valve stem towards its dispensing position.

13. A dispenser according to any one of claims 4 to 12, wherein the dispensing valve is a metered dose dispensing valve.

14. A dispenser according to claim 13, wherein the dispensing valve further comprises a chamber and an outlet passage, and the valve stem extends into the chamber and is movable relative to the chamber between the closed or priming position and the dispensing position, the valve stem having a configuration including an external surface and the chamber having an internal configuration including an internal surface, such that a movable metered volume of pressurized aerosol formulation is capable of being defined there between and such that during movement between the closed or priming position and the dispensing position the valve stem sequentially:

(i) allows free flow of aerosol formulation into and out of the chamber,
(ii) defines a closed metered volume for pressurized aerosol formulation
between the external surface of the valve stem and internal surface of the
chamber, and

(iii) moves with the closed metered volume within the chamber without
decreasing the volume of the closed metered volume until the metered
volume communicates with the outlet passage thereby allowing dispensing
of the metered volume of pressurized aerosol formulation.

10 15. A dispenser according to any one of claims 4 to 14, wherein the pressurized
aerosol formulation comprises medicament.

16. A dispenser according to any one of claims 4 to 15, wherein the pressurized
aerosol formulation comprises a propellant.

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17. A dispenser according to claim 16, wherein the propellant is a hydro-
fluoroalkane.

18. A dispenser according to claim 17, wherein the propellant is selected from
20 HFA 134a, HFA 227 and mixtures thereof.

19. A dispenser according to any one of claims 4 to 18, wherein the dispenser is
in the form of an inhaler.

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